which separates the data signal from video signals for the cable television system and couples the data signal to a demodulation circuit 45 ("DEMOD") as in the CMTS 30. The data is processed by a network termination unit 46, sent to the switch or router 20 and routed onto the network 12 for transmission to the remote computer 10.

Amend page 7, last paragraph starting at line 17 as follows:

Background Information related to cable modem systems in general is described in the Data-Over-Cable Service Interface Specifications ("DOCSIS") – Radio Frequency Interface Specifications, Interim Draft, dated July 24, 1998, issued by Cable Television Laboratories, Inc. DOCSIS may be found today on the World Wide Web at the Universal Resource Locator ("URL") "www.cablemodem.com". This document, known to persons working in the art, is incorporated by reference herein.

Amend page 11, last paragraph starting at line 19 and ending on page 12 as follows:

In one embodiment of the present invention, QAM-64 is used in the RF interface 52 for downstream transmission. In another embodiment of the present invention, QAM-16 or Quadrature Phase-Shift-Keying ("QPSK") is used for upstream transmission. For the upstream embodiment, the symbol rate of upstream transmission may be 160, 320, 640, 1,280, or 2,560 kilo-symbols per second ("ksym/sec") for 16-QAM, or 160, 320, 640, 1,280, or 2,560 ksym/sec for QPSK. However, other operating frequencies, modulation methods, and symbol rates may alternatively be used. Other information on the RF interface 52 can be found in the Institute of Electrical and Electronic Engineers ("IEEE") standard 802.14 for cable modems, which is incorporated herein by reference. IEEE standards can be found today on the World Wide Web at the Universal Resource Locator ("URL") "www.ieee.org." However, other RF interfaces 52 could also be used and the present invention is not limited to interfaces complying with IEEE 802.14.

Amend page 24 first paragraph starting at line 1 as follows:

When the Initial Maintenance interval occurs, the cable modem 28 sends a ranging request ("RNG-REQ") message

-2-

upstream to the CMTS 30. FIG. 7 is a block diagram illustrating a preferred structure of a RNG-REQ message 130. The Ranging Request message 130 includes a MAC 54 management header field 132, a service identifier field 76, a downstream channel identifier field 134[[120]], and a pending till complete field. Descriptions for the RNG-REQ message 130 fields are shown in Table 5.

Amend page 26 first full paragraph starting at line 3 as follows:

In response to receiving the RNG-REQ message 130 from the cable modem 28, the CMTS 30 transmits a Ranging Response ("RNG-RSP") message 140. FIG. 8 is a block diagram illustrating a preferred structure of a RNG-RSP message 140. The Ranging Response message 140 includes a MAC 54 management header field 142, a service identifier field 76, an upstream channel identifier field 144, and a TLV encoded ranging information field 146[[124]]. Descriptions for the RNG-RSP message 140 fields are shown in Table 6.

1

-3-